

# IOWA STATE UNIVERSITY

## Digital Repository

---

Leopold Letter

Leopold Center for Sustainable Agriculture

---

Spring 2008

## Leopold Letter Spring 2008

Leopold Center for Sustainable Agriculture

Follow this and additional works at: [http://lib.dr.iastate.edu/leopold\\_letter](http://lib.dr.iastate.edu/leopold_letter)



Part of the [Agriculture Commons](#), and the [Sustainability Commons](#)

---

### Recommended Citation

Leopold Center for Sustainable Agriculture, "Leopold Letter Spring 2008" (2008). *Leopold Letter*. 44.  
[http://lib.dr.iastate.edu/leopold\\_letter/44](http://lib.dr.iastate.edu/leopold_letter/44)

This Book is brought to you for free and open access by the Leopold Center for Sustainable Agriculture at Iowa State University Digital Repository. It has been accepted for inclusion in Leopold Letter by an authorized administrator of Iowa State University Digital Repository. For more information, please contact [digirep@iastate.edu](mailto:digirep@iastate.edu).

## New research for 2008 focuses on emerging markets, environment and energy

The Leopold Center has awarded grants for 20 new projects covering a wide range of activities that support emerging markets for local foods and renewable energy, and encourage a transition to alternative systems that protect the environment while using fewer outside inputs.

These projects will receive \$380,805 for their first year of work, and were selected in a competitive process that began last summer. Grants for eight of the new projects are for one year, nine projects will run two years, and three grants are for three years.

The Center also has renewed or is in the process of renewing 15 grants for multi-year projects already in progress. These projects bring the total amount of current grant-funded research at the Leopold Center to \$713,556.

"These projects show a bold and balanced response by the Leopold Center to

many of the challenges faced in Iowa agriculture, and represent a rich diversity of ideas and projects throughout the state," said Director Jerry DeWitt.

He said all projects were evaluated on their potential to provide economic sustainability for farmers, conserve Iowa's soil and water resources, contribute to the social fabric of Iowa's rural communities, work with partners, and build on the Center's work in its three initiatives.

The 2008 grants include 13 new projects in the Marketing and Food Systems Initiative. The projects will create tools and resources to help farmers enter emerging markets for local foods and renewable fuels, as well as document the impacts of those activities on regional economies to encourage rural development.

"These projects build on the foundation developed since the inception of the

**NEW PROJECTS** (continued on page 2)

## Leopold, Stone Barns Center form partnership

By LAURA MILLER Newsletter Editor

It was a meeting that Fred Kirschenmann would long remember. A team of people involved in sustainable agriculture nationwide was assembled to advise the Rockefeller family on how to turn 80 acres outside New York City into a sustainable agriculture center. The site had picturesque, European-style stone farm buildings once used for the family's dairy operation, that were soon to be converted into a restaurant for serving food grown and raised on the refurbished farm.

"It was one of our first meetings and at dinner I sat next to one of the Rockefeller heirs, who asked me what I thought of their plans," said Kirschenmann, who had

recently left his North Dakota farm to direct the Leopold Center in Iowa. "I told her that I thought it was a great idea and valuable demonstration, but that the rest of agriculture might still be in trouble."

Kirschenmann said he noticed a change the next day.

"Our group was told that the new center would include a restaurant that would grow much of its own food and buy from local farmers," he recalled. "More importantly, the center would take a broader view with programs to educate people about the future challenges for agriculture."

**STONE BARNS** (continued on page 4)

## INSIDE THIS ISSUE



4



11

Director's Q&A: Soaring web site use, role of technology 3

Kirschenmann: Creating problems we hope to solve? 5

Managing grassed waterways 6

New resource, Food Facts 7

Marketing workshop report, lessons learned 8

New advisory board member 9

Iowa's changing landscape 10

Leopold out loud 11

Cover crops May field day 12



The newsletter is on the web at:  
[www.leopold.iastate.edu](http://www.leopold.iastate.edu)

To subscribe, send an e-mail to  
[leocenter@iastate.edu](mailto:leocenter@iastate.edu)

LEOPOLD CENTER

### LEOPOLD LETTER MISSION

The mission of the *Leopold Letter* is to inform diverse audiences about Leopold Center programs and activities; to encourage increased interest in and use of sustainable farming practices and market opportunities for sustainable products; and to stimulate public discussion about sustainable agriculture in Iowa and the nation.

Leopold Letter ISSN 1065-2116

### LEOPOLD CENTER STAFF

<b>Director</b> Jerry DeWitt	<b>Communication Specialists</b> Laura Miller Carol Brown
<b>Distinguished Fellow</b> Fred Kirschenmann	<b>Outreach and Policy Coordinator</b> Mary Adams
<b>Marketing and Food Systems Research Program Leader, Associate Director</b> Richard Pirog	<b>Program Assistant</b> Beth Larabee
<b>Ecological Systems Research Program Leader</b> Jeri L. Neal	<b>Administrative Specialist</b> Karen Jacobson
<b>Secretary</b> Blue Maas	<b>Program Specialist</b> Malcolm Robertson

### LEOPOLD CENTER ADVISORY BOARD

**Neil Hamilton**, chair, Drake University, Des Moines  
**Laura Jackson**, vice-chair, University of Northern Iowa, Cedar Falls  
**Russell Brandes**, member-at-large, Soil Conservation Committee, Hancock  
**Lyle Asell**, Iowa Department of Natural Resources, Des Moines  
**Kelley Donham**, University of Iowa, Iowa City  
**Doug Gronau**, Iowa Farm Bureau Federation, Vail  
**Maynard Hogberg**, Iowa State University, Ames  
**Erin Irish**, University of Iowa, Iowa City  
**Paul Lasley**, Iowa State University, Ames  
**Aaron Lehman**, Iowa Farmers Union, Polk City  
**Paul Mugge**, Practical Farmers of Iowa, Sutherland  
**John Olthoff**, Dordt College, Sioux Center  
**Jack Payne**, Iowa State University, Ames  
**Patrick Pease**, University of Northern Iowa, Cedar Falls  
**Jim Penney**, Agribusiness Association of Iowa, Ames  
**Jennifer Steffen**, Soil Conservation Committee, Birmingham  
**Maury Wills**, Iowa Department of Agriculture and Land Stewardship, Des Moines

The Leopold Center for Sustainable Agriculture seeks to identify and reduce adverse socioeconomic and environmental impacts of farming practices, develop profitable farming systems that conserve natural resources, and create educational programs with the ISU Extension Service. It was founded by the 1987 Iowa Groundwater Protection Act. The *Leopold Letter* is available free from the Leopold Center at 209 Curtiss Hall, Iowa State University, Ames, Iowa 50011-1050; (515) 294-3711.



Iowa State does not discriminate on the basis of race, color, age, religion, national origin, sexual orientation, gender identity, sex, marital status, disability, or status as a U.S. veteran. Inquiries can be directed to the Director of Equal Opportunity and Diversity, 3210 Beardshear Hall, (515) 294-7612.

## LIVESTOCK WORK TEAM TO BE ANNOUNCED LATER

### NEW PROJECTS (continued from page 1)

Marketing and Food Systems Initiative to provide farmers more information on access to capital, technical assistance and network development to create food, fiber and energy businesses," said Rich Pirog, who directs the initiative.

He said a web-based sales template will make it easier for food buyers to place orders for produce, meats and other items directly with farmers or farmer networks. A prototype developed for northeast Iowa will be expanded to all parts of the state.

Another set of projects targets new farmers in immigrant and ethnic communities as well as farm families who want to bring children and others into their operations. Pirog said grants will support development of bilingual training for Latino farmers at Marshalltown Community College, the start of a "new generation" farm program by Practical Farmers of Iowa, and a "jump start" new farmer program in Cass County.

Six new grants are part of the Center's Ecology Initiative that focuses on innovative ways to use diversified farming systems in Iowa. One new project explores whether grazing cattle on restored prairie and browsing goats in degraded oak savannah can provide multiple benefits to land, biodiversity and livestock management for both the farmer and the conservationist.

Other projects include developing and testing alternative biomass cropping sys-



[www.leopold.iastate.edu](http://www.leopold.iastate.edu)

Marketing grant descriptions:  
[www.leopold.iastate.edu/research/marketing\\_files/2008grants.htm](http://www.leopold.iastate.edu/research/marketing_files/2008grants.htm)

Ecology grant descriptions:  
[www.leopold.iastate.edu/research/ecology\\_files/2008grants.htm](http://www.leopold.iastate.edu/research/ecology_files/2008grants.htm)

Policy grant description:  
[www.leopold.iastate.edu/research/policy\\_files/2008grants.htm](http://www.leopold.iastate.edu/research/policy_files/2008grants.htm)

Map showing project locations:  
[www.leopold.iastate.edu/research/marketing\\_files/map\\_2008LCgrants.pdf](http://www.leopold.iastate.edu/research/marketing_files/map_2008LCgrants.pdf)

tems, measuring soil moisture and plant water use under different annual-perennial plant communities, and using agroforestry techniques to combine shade pasture and forage while producing woody biomass.

Ecology Initiative leader Jeri Neal said that accounting for the forms of energy used on the farm also is an important part of innovation and diversity. One new project specifically addresses agricultural production energy costs and will attempt to assess the total energy footprint of pigs raised in both conventional and alternative production systems. Another project considers several ways to reduce pesticide and herbicide use in Iowa vineyards.

The Policy Initiative will sponsor one new project, a two-year study to develop state policy alternatives that will encourage sustainable production of biofuels feedstocks.

The special call for a grass-based livestock work team is still under development.

## 2008 NEW LEOPOLD CENTER GRANT PROJECTS

### Marketing and Food Systems Initiative

- Adding a New Generation to Iowa's Sustainable Farms
- Establishing an Iowa Microenterprise Foundation
- Expanding Business Skills for Specialty Growers in Iowa
- Grinnell Area Petroleum Replacement Initiative Phase 2
- Latino Farmers and Local Multicultural Food and Marketing Systems
- Mapping Biomass Markets in Iowa
- Measuring the Economic Impacts of Local Food Initiatives at the Regional Level
- New Farmer Jump-Start Project
- Pottawattamie County Farm to Fork
- Producer Machinery and Labor Sharing Arrangements Workshops
- Researching and Evaluating an Effective Web-Based Local Food Sales Template Phase II
- Strategies to Effectively Promote and Market On-Farm Retail Enterprises
- Strengthening the Local and Regional Food System in the Iowa Valley

### Ecology Initiative

- Agronomic, Environmental and Economic Performance of Alternative Biomass Cropping Systems
- Energy Use and Nutrient Cycling in Pig Production Systems
- Grazing Prairie: Improving Species Diversity while Maintaining Cattle and Goat Productivity and Resting Home Pastures
- Providing Shaded Pasture with Perennial Biomass Energy Plantings
- Soil Moisture Dynamics and Plant Transpiration under Contrasting Annual-Perennial Cover Types

### Policy Initiative

- State Policy Alternatives for Biofuels Industry Support of Sustainable Production of Biofuels Feedstocks

# q&a

## A conversation with Director Jerry DeWitt

### Q. How does the Leopold Center use technology to share the latest information?



One of my goals since coming to the Leopold Center more than two years ago has been to understand the incredible power and penetration of Leopold Center research via the Internet. Since 1995, the Leopold Center has maintained a web site, [www.leopold.iastate.edu](http://www.leopold.iastate.edu), but it has been difficult to determine the reach of that information.

In an attempt to accurately gauge the usage of our web site, we switched to a server maintained by Iowa State University Extension, a primary partner in helping the Leopold Center bring results of our research to the public. This server collects information on the number of requests for files, types of visitors, and which pages and files are viewed most often at our web site. For the past year, we've been receiving monthly reports of web site traffic.

In December 2007, the Leopold Center web site recorded a milestone: 2 million total "hits" during the year (a "hit" represents a request for information from the server, including images, page views and other files). A better indicator of interest might be the number of web site visitors, which has averaged nearly 22,000 *each month* during the past year.

Particularly striking is the number of PDF files downloaded or viewed every month on the Leopold Center web site (PDFs, or Portable Document Format, are viewed with a free reader). These are the kind of files we use for most of our research summaries and reports. Our web site visitors download or view an average of

nearly 40,000 PDFs *every month*, and the numbers continue to climb.

These figures speak to the need for Leopold Center research, and the value perceived by the public. Thanks to our communication specialist, Laura Miller, our IT student Charles Richards and others who keep the Leopold Center at the forefront of timely information sharing and easy access.

### Q. Beyond the numbers, how has technology been used to transmit other information and research?

Leopold Center-funded research projects have generated many creative on-line tools and interactive resources. One example is the Iowa Produce Market Potential Calculator that allows the user to see the demand and supply for Iowa fruit and vegetable crops. Our partners are expanding that tool and they are building a similar tool for biomass production.

We recently have begun to include links to podcasts of Leopold Center lectures and other sustainable agriculture events. You can listen to John Ikerd's 2008 Shivvers presentation about the importance of small family farms, and hear recent lectures by Leopold Center Distinguished Fellow Fred Kirschenmann. From our home page, [www.leopold.iastate.edu](http://www.leopold.iastate.edu), go to "News

& Events" then "Past workshops/seminars" for podcasts from recent Leopold Center-hosted events. For Fred's lectures, check under "Publications" then click on "Speeches and presentations."

### Q. What can we do in the future?

I hope the Leopold Center can move to increased use of podcasts on timely topics, more recorded audio lectures, images and video clips. I envision farmers and educators receiving critical Leopold Center information and data in the field, on the road, and at the office on personal hand-held devices. Our research findings should be at their fingertips.

The key to better understanding and success in sustainable agriculture is not only having access to data and information, but also having the opportunity to interact and test the data; we need a human touch as well. Our technology and approach to sharing information can provide both.

### Q. What about teaching and new technologies?

I also have been sampling a new educational delivery tool this semester as a co-instructor with Kathleen Delate for an organic agriculture course in the College of Agriculture and Life Science's Brenton Center. We use a meeting system called Adobe Connect, and we conduct a three-hour class "live" every Tuesday evening. About 32 undergraduate and graduate students are enrolled, participating at sites both on and off-campus, and a number of students are taking the class on a non-credit basis.

I like this technology. We can teach, receive questions on-line and respond immediately. I look forward to expanding this concept for other timely topics in sustainable agriculture. This organic course will be offered again in 2010.

### Samples of on-line tools

Iowa Produce Market Potential Calculator  
<http://www.ctre.iastate.edu/produce>

Produce Profitability Calculator  
<http://www.iastatelocalfoods.org/calculator>

I-FARM  
<http://i-farmtools.org/>

Beef Cashflow Planning Tool, Transitioning from Conventional to Alternative Production Systems  
[http://www.iowabeefcenter.org/content/software\\_calculator\\_cashflow.html](http://www.iowabeefcenter.org/content/software_calculator_cashflow.html)



Iowa farmer Paul Willis

[Photo by Jerry DeWitt]



## KIRSCHENMANN TO SPLIT TIME BETWEEN CENTERS

**STONE BARN** (continued from page 1)

In May 2004, the nonprofit Stone Barns Center for Food and Agriculture opened in Pocantico Hills, New York. Situated in a lush valley only a 45-minute drive from downtown New York City, the center includes a four-season vegetable farm, pastured livestock operation, restaurant and café (operated privately), visitor's center and gift shop. Programs for adults, children and families are designed to help people understand and participate in local, sustainable and healthful food systems.

### Joint appointment

Kirschenmann has remained active with the Stone Barns Center, serving on its volunteer board of directors. Recently, the Leopold Center has formalized a relationship by signing an agreement to share Kirschenmann's appointment between the two organizations. He will remain Distinguished Fellow, while serving as president of the Stone Barns Center, which will reimburse the Leopold Center for costs of the arrangement.

He will continue his busy schedule speaking to groups throughout the country on behalf of both centers. He also will oversee several national projects for the Leopold Center, including Agriculture of

the Middle. At the Stone Barns Center, Kirschenmann will help with team building, work with its two farm managers, assist with program development, and chair the quarterly board of director meetings.

The link between the two centers is a logical one, he explains.

"I think we can learn from one another and explore sustainable agriculture in urban settings as well as rural settings," he said. "Our next generation of farmers will be caught in an industrial model with high levels of inputs. But as energy costs go up and our natural resources become depleted, we need to rethink our production system to apply some of the same ecological principles we're developing in rural communities to urban settings."

Stone Barns has relied upon research from the Leopold Center and others to set up its working farm and to strengthen the local food system.

### About Stone Barns Farm

More than 200 varieties of produce are grown in raised beds in greenhouses. Outdoor crops suitable for the local soil and climate are grown with no chemical additives. All soils are amended with compost produced in the livestock operation and

Leopold Center Director Jerry DeWitt said he was happy to work out the agreement, which will be re-evaluated at the end of 2008. "We think both centers will benefit from this partnership and that it will create new networks, ideas and approaches for our work," he said. Kirschenmann noted that he plans to collect data at Stone Barns that can be used for research and a variety of other projects.

from food waste and other waste materials from the grounds.

The livestock operation includes chickens, turkeys, rabbits, sheep and pigs. Animal breeds were chosen to suit to the local ecosystem and are rotationally grazed. Food not sold to the restaurant operation is sold at the Stone Barns Farm Market.

"Stone Barns is introducing people to the idea of a local food system and helping them enjoy the pleasure of good eating," Kirschenmann explained. "But in the long term, as our global food system becomes stressed to provide food in certain areas, we believe Stone Barns can play an important role by showing how people can grow some of their food themselves.

"It's no different than victory gardens during World War II, which provided 40 percent of the vegetables eaten in this country. As farmland is converted to housing developments, there are thousands of acres of lawns that could be converted to gardens once again."

As one might expect, Kirschenmann said the farm programs have been popular, especially with young families who enjoy the animals. "At summer day camp and on school tours, children from New York City can meet the farmers, pull weeds and develop an appreciation for where their food comes from," he said.

He's also encouraged by the center's farm apprentice program. Many are college graduates who want to enter agriculture but have limited farm experience. Their work at Stone Barns may help them do just that.



*Top: The hay barn and stone silos at the Stone Barns Center in New York*

*Bottom: Children visit the gardens and livestock areas.*

*Stone Barns offers a variety of programs for school-age students including the summer farm camp, after-school programs, weekend explorer programs and tours.*

*Photos by Michael Moran and Erika Harvey, courtesy Stone Barns Center.*



 [www.leopold.iastate.edu](http://www.leopold.iastate.edu)

Stone Barns Center  
for Food and Agriculture  
[www.stonebarnscenter.org](http://www.stonebarnscenter.org)



TOWARD A SUSTAINABLE

Future

## Feeding the world, creating more problems?

*If we want peace, democracy and human rights, we must work to create the ecological condition essential for these things to exist: i.e., a stable human population at—or less than—the environment's long-term carrying capacity. — Richard Heinberg*

In 1798 Thomas Malthus published his infamous *Essay on Population* in which he warned the world that unchecked population growth inevitably will outstrip our ability to increase food production. For this unpopular assertion, Malthus has been berated as a “prophet of doom.” We in the industrial world have prided ourselves on the fact that we have “proven him wrong” by demonstrating our ingenious ability to dramatically increase the productive capacity of the plants and animals we have selected for our food. Consequently, we have been able to continue feeding a rapidly expanding human population. The massive, global famines that Malthus predicted never occurred—at least not yet.

But Malthus put his finger on a truth that we have since come to recognize as a fundamental law of ecology. The more energy (food) that any species has at its disposal, the more its population increases, creating a demand for still more food; all the while eroding the ecological capital that produces the food, thereby decreasing the potential to produce the food that the expanding population needs.

In nature, this sequence of inter-related events invariably leads to a collapse of one sort or another. The species in question returns to some kind of equilibrium with the rest of the species in the ecological system in which it lives, and on which it ultimately depends.

We humans seemingly have convinced ourselves that, by virtue of our superior cleverness, we are exempt from this law of ecology. But evidence seems to be mounting that we may *not* be exempt.

We have been able to feed expanding populations due to our clever technologies that exploit the storehouse of non-renewable resources—coal, oil and natural gas, which have accumulated on the planet over many millennia. In addition, we’ve been blessed with *abnormally* stable climates that serendipitously have coincided with our fossil fuel binge, making it possible for us to *consistently* produce unimaginable quantities of food.

Complicating the situation is the fact that our ingenuity has encour-

aged us to dramatically increase our consumption, which now places even more stress on the ecological health of the planet than does an expanding population.

In a January 2, 2008 opinion piece in the *New York Times*, Jared Diamond noted that if every person on the planet increased consumption to match that of U.S. citizens, it would be equivalent to having 72 billion people living on Earth. No one believes that our planet can sustain such an impact for long, yet we seem to be on the way. Developing countries understandably want to share our consumptive lifestyles and many are poised to do so.

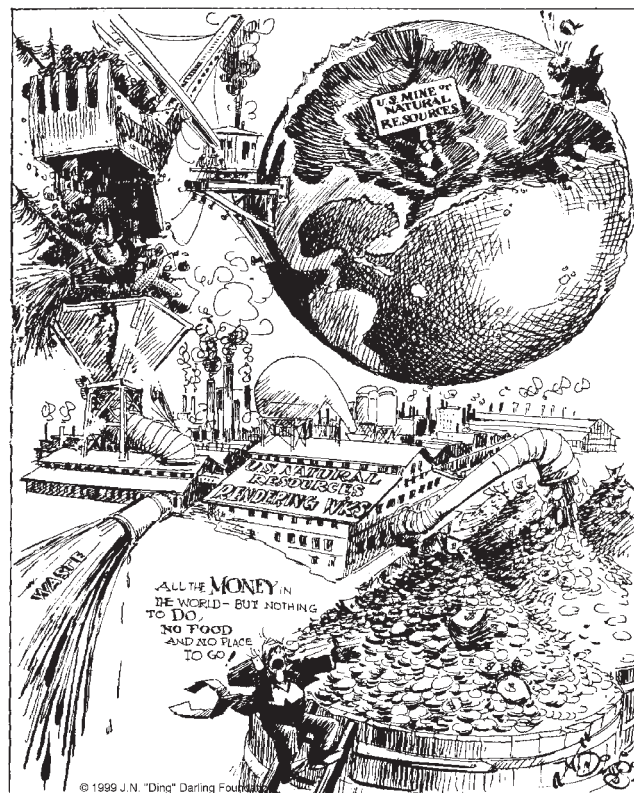
Hence, we are at an interesting crossroad. We managed to “solve” the Malthusian dilemma with the Green Revolution in technologies, which in turn increased population and consumption growth rates, while depleting natural resources (oil, natural gas, coal, fresh water, soil, stable climates) that made increased production possible.

A California farmer recently announced that he will leave his farmland fallow this year and sell his water rights; he can make

more money selling water than growing rice. The price of a barrel of oil has reached \$110 and probably headed toward \$200 within a decade, given our rate of consumption. As recently as 2003, oil was \$25 a barrel. Virtually every climatologist predicts that in the short term unstable climates—more droughts, floods and severe weather—will be the norm.

So we must ask ourselves, would it have been wiser to address the Malthusian dilemma by taking steps to keep human population growth in ecological harmony with the rest of the biotic community, rather than exploiting the planet’s resources to feed the world? It is too late to change history, but perhaps it is not too late to change our course if we act now. Continuing on our present track simply is not sustainable.

In his prescient 1938 cartoon, Ding Darling tried to call our



“How rich will we be when we have converted all our forests, all our soil, all our water resources and all our minerals into cash?” Published June 1938. Reproduced courtesy of the “Ding” Darling Wildlife Society.

**FUTURE** (continued on page 7)



# Student project looks at grassed waterway impacts on water quality

By HENRY WILSON *Special to the Leopold Letter*

While working on my undergraduate degree in Agricultural Science from Western Illinois University, I learned about the effects that agriculture can have on the environment. I became particularly interested in taking relatively small, sensitive areas out of production to mitigate the impacts of agriculture. The work that has been conducted by the ISU Riparian Buffer Research Team (initiated with Leopold Center funding) is a great example of how this approach can offer options to substantially improve environmental quality.

When it came time to select a graduate research topic, I knew that minimizing the effects of agriculture on the environment would be high on my list. I also saw this as an opportunity to extend what was known about reducing the amount of nitrogen (N) and phosphorus (P) in agricultural runoff.

Grassed waterways interested me as a conservation practice with the potential to improve water quality. According to the USDA, there are more than 30,000 acres of USDA-funded grassed waterways in Iowa, yet fewer than 10 published studies worldwide on their effective management. (In comparison with grassed waterways, Iowa has more than twice as many acres of riparian buffers and eight times as many acres of vegetative filter strips enrolled in the Conservation Reserve Program.)

## Grassed waterways, areas of potential

A grassed waterway is defined by the Natural Resources Conservation Service as “a natural or constructed channel that is shaped or graded to required dimensions and established in suitable vegetation for the stable conveyance of runoff.” Research conducted on vegetative filter strips suggests that various grass species have different impacts N and P exports from agricultural fields. The grass in grassed waterways also may serve as feedstock for future biofuels. The objective of this study is to determine how different grass species and biomass removal affect N and P export from grassed waterways.

In June 2006, I created 24 small grassed waterways for this study on my family's farm in Hancock County, Illinois, just across the Mississippi River near Fort Madison. I planted two native warm-season grasses (big bluestem and switchgrass), a cool-



season grass traditionally used in waterways (smooth brome grass) and corn in plots with three replications. On half of the plots I also removed aboveground biomass.

For the experiment, a load of “runoff” is created in a tank with sediment and N and P concentrations similar to those cited in the literature. The “runoff” is applied to the head and sides of each grassed waterway using a pump sprayer, then collected at the bottom of each waterway where it is weighed and analyzed for sediment, N and P concentration. I conducted the experiment in June, August and October 2007, and will repeat it in April, June, August and October 2008.

The differences between the N and P levels in the runoff when it enters and leaves each plot will show how various treatments act as N and P sinks in grassed waterways. I also hope to determine where the N and P that does not exit the grassed waterways is stored.

By fall 2007, the native grasses only comprised about 20 percent of their respective plots, with the rest dominated by foxtail. However, preliminary results suggest that these native grasses (still being established) decreased the amount of N and P that left the waterways in runoff by an average of 15 percent, compared to corn and smooth brome grass. Also, removing aboveground biomass increased N and P export by an average of 5 percent. These differences occurred because the volume of runoff was decreased, not because of an increase in concentration of N and P in the runoff.

When we removed aboveground biomass, we harvested 56 percent more from the native grass plots than from the corn and brome grass plots. Based on these results, I hypothesize that the N and P that did not leave the grassed waterways was stored in the aboveground biomass. In this year's experiments, I would like to find out why the native grasses decrease runoff more than other treatments.

## Project generates local interest

I found that our neighbors and other farmers were very interested in using grassed waterways not only to improve water quality, but also to improve things such as wildlife habitat and biodiversity. After I explained the simplicity of my experiment, most people offered very good suggestions and considerations with respect to real life issues concerning grassed waterways and environmental issues in general. Community assistance was critical to the success of the first year of this project and several people offered services such as a source for water, equipment, trucks, surveying and expert advice.

Based on these early results, native warm-season grasses have the potential to decrease the amount of nitrogen and phosphorus that leaves grassed waterways. Even though these grasses may be difficult to establish, they were doing a better job than commonly planted species. I have learned a lot from this experience, and my results do not necessarily represent what might happen over the 10- to 20-year life of a grassed waterway. I hope, however, that my project will inspire more research on the long-term viability of using native, warm-season grasses in grassed waterways.

*Henry Wilson grew up on a farm in Niota, Illinois and is studying for his Ph.D. in Environmental Science at Iowa State University. He is working with agronomy professor Lee Burras and advisor Jim Raich in the Department of Ecology, Evolution and Organismal Biology on a two-year special project funded by the Leopold Center Ecology Initiative, Improving Water Quality through the Management of Grassed Waterways. After graduation, he would like to teach and conduct research, or work as a consultant.*



*Wilson (right) and his work crew (from left): Wyatt Walker, Chris Burger and father Woodrow Wilson.*

## Looking for food facts? Check out this resource

**F**ood Facts: Results from Marketing and Food Systems Research summarizes the findings of the Leopold Center's research, demonstrations, studies and surveys in the rapidly growing area where food culture, economics and environmental issues intersect.

The new resource is available as an interactive Web site and in a printed version, which features the photography of Leopold Center Director Jerry DeWitt.

"This resource makes the results of our marketing and food systems research more accessible and useful for a variety of target audiences," said Rich Pirog, leader of the Leopold Center's Marketing and Food Systems Initiative.

Users of the new resource will see key findings from initiative-funded work and related projects. The results are categorized by type of project, from food miles and place-based research to research on niche meat markets, transaction costs and various facets of the grape and wine industry. The resource is designed for use by farmers, food entrepreneurs, local food system practitioners and other researchers.

"In recent years, the Leopold Center has supported projects leading to the develop-

ment of new web-based tools for farmers who want to enter specialty markets," Pirog noted. "The section on tips and tools should be especially helpful when producers consider marketing specialty crops and livestock."

Pirog called the new resource a "work in progress. We'll be adding information as new project results are available." Future topics include consumer surveys, opportunities for minority farmers and financing new farm-based enterprises.



 [www.leopold.iastate.edu](http://www.leopold.iastate.edu)

**Food Facts:**  
[www.leopold.iastate.edu/  
research/marketing\\_files/  
food/food.htm](http://www.leopold.iastate.edu/research/marketing_files/food/food.htm)

To request a printed copy,  
e-mail [leocenter@iastate.edu](mailto:leocenter@iastate.edu)  
or call (515) 294-3711.

## Annual report celebrates 'Horizons'

*The role of the Leopold Center, in my opinion, has been pivotal at a crucial time for sustainable agriculture. The Center has served to encourage (perhaps demand) interdisciplinary work—a critical element for agriculture to become truly sustainable. ... Perhaps most importantly, the Leopold Center has emphasized and supported getting results out to farmers and other land owners who can actually use it on the land so that important work doesn't just sit in some obscure academic journal.*

- Jim Pease, Extension Wildlife Specialist, Iowa State University

**C**omments from Pease and other partners and investigators are sprinkled throughout the 20th anniversary annual report from the Leopold Center. Entitled "Horizons," the report takes note of the distance the Center has traveled since it was created under the auspices of the Iowa Groundwater Protection Act in 1987. A timeline of events in the Center's two-decade history anchors the narrative.

Considerable coverage is devoted to the year's work done by the Center's initiatives, through their competitive grants research and special projects in policy, ecology and marketing and food systems. Among the Center's FY2007 significant involvement and investments: grassland agriculture; regional and local food systems; a multi-

state collaboration, Green Lands, Blue Waters; micro-enterprise loans; Boone River Watershed research; food, energy and fuel use; and a survey of Iowa's organic food producers.

The 56-page publication also includes reports from some of the "strategic investments" funded by the Center beyond its extensive competitive grants program: Iowa's Grape and Wine Industry Institute, Practical Farmers of Iowa on-farm demonstrations, promising students in the Graduate Program for Sustainable Agriculture at Iowa State, long-term organic crop research all over the state, and the Agricultural Systems Initiative in ISU's College of Agriculture and Life Sciences.

Also in 2007, Director Jerry DeWitt proposed six new core issues for the Center's

## LAWS OF ECOLOGY CAN NOT BE SUSPENDED

**FUTURE** (continued from page 5)

attention to an important question (and title of his drawing): How rich will we be when we have converted all our forest, all our soil, all our water resources and minerals to cash?

There is simply no good reason to believe that the law of ecology can be suspended. Our insane preoccupation with maintaining growth, economic and human, ultimately will lead to our collapse as it does for all other species.

Instead of feeding the world regardless of the cost, we can begin bringing our population and consumption into equilibrium with the planet's capacity to maintain its ecological health. We can do this through programs to that give resource-poor people access to education, make family planning methods affordable and available worldwide, and develop policies to discourage energy and material-intensive consumption. The irony is that we actually could improve our quality of life by taking this second path. We are finally realizing that working ourselves to a frenzy to consume a lot of stuff that we don't need is not giving us the life we want.

*Julius Kirschenmann*

 [www.leopold.iastate.edu](http://www.leopold.iastate.edu)

**Horizons annual report:**  
[www.leopold.iastate.edu/pubs/  
annual/annual.html](http://www.leopold.iastate.edu/pubs/annual/annual.html)

To request a printed copy,  
e-mail [leocenter@iastate.edu](mailto:leocenter@iastate.edu)  
or call (515) 294-3711.

advisory board and staff to evaluate, and took on leadership of the Iowa Learning Farms project. Distinguished Fellow Fred Kirschenmann continued his extensive speaking and writing career while maintaining connections with other sustainable agriculture groups (from Agriculture of the Middle to the Whiterock Conservancy) in Iowa and nationwide.

The annual report is edited by Mary Adams of the Leopold Center staff and designed by Julie Mangels of Juls Design in Ankeny.



## Center marketing workshop attracts large crowd

Nearly 200 people attended the Leopold Center's Marketing and Food Systems Workshop March 11 in Ames. They learned about research on financing and managing niche enterprises, local food distribution networks and other emerging business opportunities for farmers.

The day's events included presentations on more than 30 projects currently funded by the Center's Marketing and Food Systems Initiative and the Value Chain Partnerships project.

"Since its inception in 2001, this initiative has worked to find marketing solutions for Iowa farmers," said initiative leader Rich Pirog. "Between 2001 and 2008, there were 80 projects supported in this area."

The Leopold Center also has become a national leader in marketing and food sys-

tems research, said Director Jerry DeWitt. He said a study conducted for the W.K. Kellogg Foundation and the Sustainable Agriculture and Food Systems Funders shows the Leopold Center ranked ninth nationally in the amount of funds provided for sustainable agriculture and food systems projects between 2003 and 2006.

Headlining the workshop were reports from four working groups that focus on niche pork, local and regional foods, fruit and vegetable production, and small meat processing. Concurrent sessions looked at:

- Financing niche agricultural businesses;
- Fostering agricultural entrepreneurship in Iowa's immigrant communities;
- Economics of one of Iowa's fastest growing ethnic markets for chevon, or goat meat;
- Tools to help farmers succeed in niche markets;

 [www.leopold.iastate.edu](http://www.leopold.iastate.edu)

Workshop presentation materials:  
[www.leopold.iastate.edu/research/marketing\\_files/workshop08/index.htm](http://www.leopold.iastate.edu/research/marketing_files/workshop08/index.htm)

- Grass-based and organic dairy options;
- Selling local food to colleges and universities;
- Web-based local food ordering tools; and
- Business planning programs for entrepreneurs and farmers.

In addition to summaries from several sessions that appear here, you can find materials from most of the workshop presenters on the Leopold Center web site.

## Local food goes to college

Incorporating local foods into college dining can present challenges, but presentations from the University of Iowa and Iowa State University showed that it can be done.

Leah Wilson presented results from her project, Strengthening the Regional and Local Food Systems in the Iowa Valley. Her goal was to answer the question: How can we make the University of Iowa food system more sustainable? Wilson, from the Johnson County Local Food Alliance, organized a group of stakeholders to address the question. At this point their accomplishments include a five-year strategic plan and the development of a set of indicators for the university to move toward the sustainability of their food system.

At Iowa State University, the approach was slightly different. Sue DeBlieck, a student in the Graduate Program in Sustainable Agriculture, has been working with ISU Dining to add more local foods to offerings in residential dining halls, cafes, convenience stores and catering services on campus. The Farm to ISU program is celebrating its first year, which served as cause for reflection on how to improve the program.

Two challenges have been the difficulty finding local produce on the scale that ISU wants to purchase, and bringing awareness and appreciation of these local foods to campus. The Leopold Center funded



*Sue DeBlieck, Farm to ISU program*

five events that brought local food vendors and ISU Dining together, keeping the communication open to help resolve these issues. ISU Dining drew upon the talents of the College of Design, having art students create posters about the local vendors that were displayed across campus. From August 2007 through January 2008, ISU Dining spent more than \$342,600 for produce, meat and dairy items from Iowa producers.

## Building vibrant food systems

One of the simplest keys to building strong regional food systems may be to help consumers find local foods. Kamyar Enshayan from the University of Northern Iowa and Robin Gaines from Bartels Lutheran Retirement Community in Waverly shared experiences from their project, "New Champions Expanded Scope." The new Northern Iowa Food and Farm Partnership has been created to increase the availability and purchase of foods in the eight-county area surrounding Waterloo.

Knowing your community's strengths is another good first step in enhancing the regional food system. Christine Taliga, from the Iowa Valley RC&D, shared initial data collected as part of her project in the Cedar Rapids area. Known as the Iowa Valley Regional Food Initiative, or I-Food, they first looked at what options already existed in the six-county area. The region includes the state's second largest city, the state's only Native American community and the largest Amish Mennonite settlement west of the Mississippi River. The region has about 7,000 farms, 12 percent of the state's vegetable farmers and more than 360 acres in fruit production. Taliga said the group is interested in working with the Amish community on the benefits of organic meat, and food access also has been identified as a key issue.

**MORE WORKSHOP REPORTS** page 9

## Farmer joins advisory board as Farm Bureau rep

A farmer from west central Iowa has joined the Leopold Center advisory board. Doug Gronau, who operates a farm near Vail in Crawford County, represents the Iowa Farm Bureau Federation on the board. He replaces Doug Beckman, who had served on the board since 2004.

"I want to serve on the advisory board to be a part of alternative cutting-edge technology that is being studied," Gronau said. "I bring the perspective of a general farmer with a determination to be proactive in soil conservation and the environmental discussions. I want to help present studies that will benefit all of agriculture."

Gronau said he has read materials from the Leopold Center for many years, noting that the Center is involved in research projects that few other universities explore.

"I think the Leopold Center can point out alternative methods for agriculture that can offer another way for a segment of our

industry to prosper," he added.

Gronau farms with his wife, Judy, and their son, Greg. They grow corn, soybeans and hay in a system that has been no-till since 2003.

The Gronaus are members of the Iowa Corn Growers Association and Iowa Soybean Association. They have participated in the soybean association's Certified Environmental Management Systems for Agriculture (CEMSA) program, a process by which participants can measure the impact of current practices to reduce energy use and use of commercial fertilizers. Their farm also is enrolled in a carbon credit program.

Gronau has a degree in history and economics from Wayne State College in Nebraska. Since joining the Crawford County Farm Bureau in 1974, he has served in numerous leadership capacities. For the past six years, he served on the Iowa Farm Bureau Foundation's Board of Directors,

I want to serve on the advisory board to be a part of alternative cutting-edge technology.  
— Doug Gronau



representing 11 counties in west central Iowa. He also served on several statewide committees, including the federation's speaker corps and on several statewide environmental committees.

Judy Gronau is a District Soil Commissioner and serves on the M&M Divide RC&D Board of Directors. The Gronaus have been involved in community, church and school activities. Doug has served on the county extension council and currently is a member of the Crawford County Board of Adjustments.

They have four children and several grandchildren.

## WORKSHOP REPORTS: FINANCIAL ASSISTANCE FOR NICHE PRODUCERS, FOOD BUSINESSES

An overview of three projects, funded this year by the Leopold Center, showed that while the audiences and goals were not the same, all found a common message—help is out there for small businesses; they just need ways of finding it.

Verl Anders, from the ISU's Center for Industrial Research and Service (CIRAS), presented results from his project with small meat processors. The goal was to improve the financial viability of these firms by introducing processors to an Excel-based software program that helps track expenses and revenue. They conducted several workshops, exposing these small business owners to ways they can better manage costs. Anders has scheduled additional workshops throughout Iowa for new participants, and will follow up with past attendees.

Another presentation by Howard Van Auken, ISU Department of Finance, analyzed how small ag producers accessed capital for their businesses. He surveyed agencies that fund niche producers to determine who was being served and what funding criteria and technical assistance were provided. He then surveyed niche ag producers, asking about their sources of capital, funding agencies and technical assistance. He found that the relationship between potential funders and small producers was disjointed and that communication was lacking, thus making access to capital highly difficult to obtain.

Ron Prescott, ISU Department of Economics, presented an overview of his project that will help niche producers access capital. He discussed the establishment of the Iowa Foundation for Micro-business and Community Vitality. This foundation is still being developed with a roll-out set for July 2008. The organization will be a resource for micro-loans, technical assistance and networking among Iowa small businesses. It is the goal of the foundation to help build the capacity of high-risk businesses so that they become lower-risk businesses after six years.



Top: Ron Prescott from the ISU Community Vitality Center  
Bottom: Kamylar Enshayan (left), University of Northern Iowa, discusses his presentation during the workshop.

# News & Notes

Leopold Center Director Jerry DeWitt was honored with the highest career award for any person working with Iowa State University Extension. He received the Iowa State University Award for Distinguished Service in Extension at the fall convocation in September. Most of his 35-year career at ISU has been with extension, beginning in 1972 as an entomologist. His work includes service as coordinator of the Pest Management and the Environment Program, assistant director of University Extension, and associate dean of the College of Agriculture. In each of his positions, he forged collaborations to strengthen farming, promote environmental stewardship and enhance the quality of life in rural Iowa. He was instrumental in creating a partnership between Extension and Practical Farmers of Iowa that earned a Rodale National Environmental Achievement Award.

....

Leopold Center Associate Director Rich Pirog is a member of the Farm-to-School Council in the Iowa Farm-to-School Program, coordinated by the Iowa Department of Agriculture and Land Stewardship and the Department of Education. The program, funded for the first time in 2007, connects farmers and schools for nutrition programs, farm visits and lunch programs. Pirog recently was asked to serve on the Program Strategy Advisory Committee for the National Farm to School Program.

....

The Small Meat Processors Working Group recently became part of the Value Chain Partnerships project coordinated by the Leopold Center. The working group led by the North Central Regional Center for Rural Development at ISU has met over the past 18 months to find resources at the local, state and national levels that will help

Iowa's small meat processors who want to begin, upgrade or expand their businesses. The group has published a resource guidebook that addresses five areas where meat lockers struggle: business planning and feasibility, financing and financial assistance, plant design, plant construction and labor. The book also explains rules and regulations that govern small meat plants and provides a list of contractors who have recently designed and/or constructed a meat processing facility. The guidebook can be downloaded at no charge at: <http://www.ncrcrd.iastate.edu/pubs/contents/189.htm>.

....

Iowa State University President Gregory Geoffroy has named Leopold Center Ecology Initiative Leader Jeri Neal to his Advisory Committee on Energy Conservation and Global Climate Change. The 16-member committee has been asked to advise the president on policies and activities that will reduce campus energy use and raise environmental awareness at the university. Neal also is part of the seven-member steering committee for the ISU Council on Sustainability (<http://sustainability.iastate.edu/sustainability>).

....

A free Produce Profitability Calculator, on the web at [www.iastatelocalfoods.org/calculator](http://www.iastatelocalfoods.org/calculator), helps producers create scenarios to inform their decisions about what and how much to plant as well as sales decisions such as how, where and when to sell, and setting a price. The tool was developed as part of a Leopold Center competitive grant to the Hotel, Restaurant and Institution Management (HRIM) program at ISU. A user's manual for the calculator is at: [www.leopold.iastate.edu/research/marketing\\_files/profitability\\_0108.pdf](http://www.leopold.iastate.edu/research/marketing_files/profitability_0108.pdf).

## Seeking cover crop users

As most farmers know or at least suspect, establishing winter cover crops after harvest in the fall can be a challenge. The Leopold Center would like to learn about the successes and pitfalls in using cover crops from those who know first-hand, and then will share this hard-learned, how-to knowledge with others. What worked for you and what did not?

If you have insight or experiences to share, please contact Sarah Carlson at Practical Farmers of Iowa, (515) 232-5661 x 105, or [sarah@practical-farmers.org](mailto:sarah@practical-farmers.org).

This project is part of the Iowa cover crops working group, led by PFI, the Leopold Center and researchers from the USDA-ARS National Soil Tilth Laboratory, ISU research and extension partners and the Iowa Learning Farm. The Iowa work supports activities of the Midwest Cover Crops Council, a regional working group of the Green Lands, Blue Waters consortium.

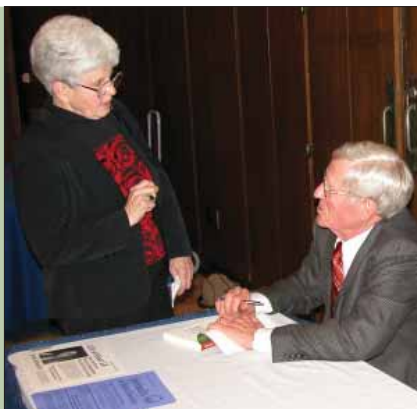
....

John Obrycki, a student at Miami of Ohio University, has been studying the Leopold Center as part of his senior honors project. He looked at 233 completed grants from the Leopold Center and analyzed their outreach activities. The projects were included in 161 conference proceedings, 2,000 posters and presentations, 457 field days, 65 thesis projects, 155 abstracts, 19 book chapters, 100 annual reports, 629 news articles and 113 extension publications. Twenty Leopold Center grants that resulted in 34 peer-reviewed publications had been cited more than 600 times.

## Iowa's changing landscape

*"I am stirred because the countryside between Missouri and Iowa is looking more like the old Soviet Union with fewer small farms and fewer rural communities. It doesn't matter whether these very large farms are owned by a large corporation or a large cooperative, I suspect the consequences will be much the same." -- John Ikerd, 2008 Shivers Memorial Lecture, February 24, Iowa State Memorial Union (shown here with family member Charlotte Shivers)*

*Listen to his remarks, "Family Farms in an Era of Global Uncertainty," on the Leopold Center web site: [www.leopold.iastate.edu/news/pastevents/ikerd/ikerd.htm](http://www.leopold.iastate.edu/news/pastevents/ikerd/ikerd.htm)*





## Aldo Leopold out loud, a community experience

*"There are some who can live without wild things, and some who cannot."*

These words, written by Aldo Leopold in 1948, still strike a responsive chord today. They also take on new meaning when members of a community read them out loud together.

That is the idea behind dozens of Aldo Leopold celebrations that take place every year on the first weekend of March. More than 75 people from central Iowa joined those communities at an Ames event, hosted by the Aldo Leopold Foundation and the Leopold Center.

Erv Klaas, a retired Iowa State University professor, organized the event, which featured 16 essays from Leopold's *A Sand County Almanac*, read by 20 people over a four-hour period. The readings were accompanied by a slide show of historic scenes from the Leopold foundation's archives.

"I enjoyed coordinating the event and was especially pleased to have a young high school student read," Klaas said. "She had never heard of Leopold and this was a great way for her to learn about him. I hope we can recruit more students next year, or take the show directly to the schools."

Response from both the readers and the audience was overwhelmingly positive.

"What a great day," said Ames banker Bob Anders, who grew up on a farm near Iowa Falls and read Leopold's "Back from the Argentine" essay. "The photos were a great addition and some segments were read with powerful emotion. Reading it in the public library was a good choice."

Readers included a farmer, university students and a professor, several retirees and people from the local environmental

community. Some people traveled more than 100 miles from the Fort Dodge and Iowa City areas to attend the event.

Aldo Leopold Weekend celebrations began eight years ago in the small community of Lodi, Wisconsin. Over 10 hours, two locations and 35 readers, volunteers read *A Sand County Almanac* aloud, cover to cover. According to Jennifer Kobylecky, education coordinator at the foundation, the event was organized as a "way to develop a sense of place, build community bonds, and introduce the concept of a land ethic."

In 2004, the first weekend in March was officially designated as Aldo Leopold Weekend in the state of Wisconsin. Kobylecky said 19 Wisconsin communities hosted similar events this year, joined by others in Arkansas, Georgia, Ohio and New Mexico.

### Burlington honors Leopold

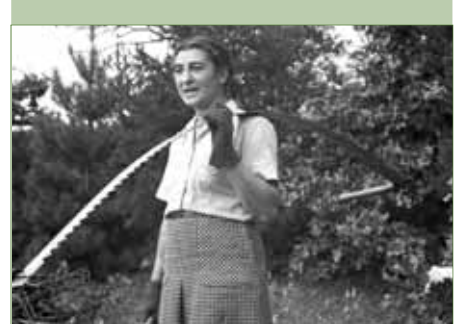
A new organization has come together in Burlington, where Aldo Leopold was born and lived until he went to high school in the East. The Leopold Heritage Group is dedicated to the place where Leopold's connection to nature was first developed, according to their web site, "tramping in the ravines and riverbottoms of his hometown." The group sponsors a number of activities including a spring trip to Leopold's "shack" in Wisconsin and events throughout the month of April.

In February, the Burlington City Council hired a Des Moines landscaping and architectural firm to conduct a feasibility study into the construction of an interpretative center named for Leopold. The family home is privately owned but a city park is located nearby.

*In June 1933, the University of Wisconsin established a chair of game management, specifically for Aldo. He became the first professor of game management. He served in extension, teaching, research and other scholarly duties, and lived the life of a true professor, and supervised the formation of the famed Wisconsin Arboretum.*

*In the winter of 1934, Leopold stumbled on an abandoned 150-acre farm close to Baraboo and adjacent to the Wisconsin River. The land had been completely farmed out. The house had burned down, but a chicken coop remained. Aldo arranged to lease the land, and the family proceeded to clean the manure out of the old coop, make it habitable for weekend getaways, and plant trees, especially pines to hold down the soil. The Shack is now a mecca for conservation professionals and volunteers alike.*

— Excerpted from a monthly column written by former Leopold Center Director Dennis Keeney for the *Ames Life and Times* section of the *Des Moines Register*. This column, "Aldo Leopold: An Iowa heritage," was published March 6, 2008.



*Historic Leopold family photos were part of the March 11 Ames Reads Leopold event. [Photos courtesy Aldo Leopold Foundation Archives]*



LEOPOLD CENTER  
FOR SUSTAINABLE AGRICULTURE  
209 CURTISS HALL  
IOWA STATE UNIVERSITY  
AMES, IOWA 50011-1050

# Highlight Events

## Spencer Award for Sustainable Agriculture

*Shown with the 2007 honoree, Laura Krouse (center), are Laura Jackson (left), University of Northern Iowa biology professor and member of the Leopold Center Advisory Board who presented the award and a \$1,000 check; and colleague Susan Jutz, who started her CSA about the same time as Krouse began her operation.*

*Deadline for 2008 nominations is May 15. Applications and other details are on the web: [www.leopold.iastate.edu/resources/spencer/spencer.htm](http://www.leopold.iastate.edu/resources/spencer/spencer.htm).*



*"I thought maybe this award might give me leverage to do what I really want to do and that is to be 'queen of Iowa.' When I'm queen there are two things I want to do: no cows will walk in any creek and no tillage equipment or planter will run parallel to any grassed waterway."*

— Laura Krouse, in jovial remarks upon receiving the 2007 Spencer Award in January at the Practical Farmers of Iowa annual conference

9 a.m., Tuesday, May 6  
Cover Crops Research Farm Crawl  
ISU Agronomy Farm, near Boone

People interested in cover crops can see the latest research while learning about the benefits and challenges of using cover crops. The workshop also will show participants how to take advantage of NRCS EQIP payments for cover crop use, and learn about a new regional matrix being developed that will help in decision-making regarding cover crops. The workshop is sponsored by the Leopold Center and Practical Farmers of Iowa as part of the Green Lands, Blue Waters project.

Lunch will be provided for those who pre-register. Details on the web at: [www.leopold.iastate.edu](http://www.leopold.iastate.edu), or [www.practicalfarmers.org](http://www.practicalfarmers.org).

**Web exclusive:** A student from across the state shares his perspective on "The Future of Agriculture in Iowa." [www.leopold.iastate.edu/pubs/nwl/2008/2008-1-leoletter/index.htm](http://www.leopold.iastate.edu/pubs/nwl/2008/2008-1-leoletter/index.htm)